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Does Finance Access Matters for Children? An Evidence Form Indonesia Family Life Survey 5 and 4

Riswanti Budi Sekaringsih[1]

[1]Junior Lecture of Faculty of Islamic Economics and Business State Islamic University (UIN) Sunan Kalijaga Yogyakarta and Research Associate on *Pusat Kajian Ekonomika dan Bisnis Syariah* (PKEBS) Faculty of Economics and Business Universitas Gadjah Mada.
Email: sekaringsih@gmail.com

Abstract: As explained in the declaration of Sustainable Development Goals (SDG) in January 2016, two of the achievements are good health and wellbeing and quality education. Households as one of the drivers of the economy, household should be able to improve this achievement. Because There are two kinds of household's outcome such as; child health and child education. One of the factors that influence this outcome is household financial access. A household who had better access on finance was more sustain than the other. This study aims to examine the impact of household financial acces on child education and child health. Source of data that used is Indonesia Family Life Survey (IFLS/SAKERTI) year 2014 and 2007. The recognition that finance access is an input in a household's production function has major implications for development. It suggests that the acquisition of human capital and the establishment of a physical infrastructure needs to be complemented by human investment the estimation is done in three ways; pooled OLS, fixed effect and random effect. The result shows that finance access matters for child health, specially the availability of BRI and BMT in village. And for child education, finance access specially the availability of BRI and BMT in village have positive impact for child education.

Keywords: Financial Acess, Saving, Loan, child health, child education, IFLS

Introduction

The most problem that face by developing country is hunger. When a child being malnourished, it will be affected his future (child education). Despite this incredible progress, more than 6 million children still die before their fifth birthday every year (UNDP, 2017). One way to control child growth is by knowing their nutritional status. Nutritional status is computed from heights and age then converted into standardized values/Z-score (Skoufias, 1999, Ricci, 1996). Z-score calculation results can be used to categorize thin child or short child of stunted child. Further Riskesdas 2013 found that 5.3 percent or equals with 1.1 million children of Indonesian children are very thin. Another thing those are important for children are education. Along with improving health, education in Indonesia has boomed. Currently about 97.62 percent of children, aged 7 to 12 years in Indonesia are able to attend school (BPS, 2017). Most of them are enrolled on six years old (Statistik Sekolah Dasar Tahun Ajaran 2008/2009).

There are three theories that underlie this research: child health, child education, and bargaining power. First on child health, child health generally influenced by two types of factors: first internal factor such as sex and age, the second is external factor. The examples of external factors are parental income (Senbajo et al., 2005), sanitation and clean water sources (Silva, 2005), birth spacing and birth weight (Ricci and Becker, 1996), and parental education

(Mishra and Retherford, 2000, Skoufias, 1999). The easiest way to measure child health is measuring children height and weight. Child nutritional status will explain the condition whether child is healthy or unhealthy (Bekti, 2012, Hartriyanti and Triyanti,2007). Furthermore height for age measures linear growth retardations which is reflecting chronic malnutrition (long term) (Waterlow , 1972:556, Ricci and Becker, 1996, Mishra and Retherford, 2001). Children whose height for age fall more than two standard deviations bellow reference median are defined as stunted (stunting in this research). Measurement of children nutritional status that used the study is height for age and stunting, which describes a measure of the nutritional status of the past.

Second, is about child's education. According to *Law (20) year 2003 on National Education System* of education is defined as a combination of various process activities create an atmosphere of learning and the learning process so that learners are actively developing the potential for him to have the spiritual strength of religious, self-control, personality, intelligence, noble character, and skills he need, society, nation and state. According to Connelly and Zheng (2002) gender, parent's education, existence of school and house location affects school enrollment and school attainment. Influence of being child labor also affects school attainment (Khanam and Ross, 2005). Further, the cost of education and age group according to Ota and Moffatt (2007) affects school enrollment. Last one according Malarani (2004), the numbers of family members affect children's education. Measurement of child education that used the research is school enrollment and education attaiment on children, which describes household wealth.

The third, the other factor in the household that may affect the child health and child education is household finance. Household finance could be similiar with corporate finance, when we must understand how households use financial instruments to attain their objectives (Champbell, 2006). Households blueprint must be in various ways; they have important nontraded assets, notably their human capital; they hold illiquid assets, notablyhousing; they face constraints on their ability to borrow; and many more. In Bangladesh Yunus (2006 on Karan and Mordoch, 2009) argues, household who had loans as capital can make their incomes will grow and, with rising incomes, children will be given longdenied opportunities. Latter finance access could be represent by microfinance institutions work on a credit-only basis, funding themselves from charitable donors and other sources; some employ forced savings elements to the loan scheme. With this type of institution it could spead accross the nations and emphasize deposits as well as loans as key tool for efficient financial management, whether they represent precautionary savings, or a means of accumulating capital. Those accumulation can be important capital on their community (Honohan, 2007). Measurement of household finance in this paper are their ownership of saving in bank account, own a debt and village condition on microfinance institution.

This study aims to examine the impact finance acces on child education and child health. Here, I use height for age z-score and stunting as health measurement and child enrollment and education attainment as education measurement. Estimation is done in three methods of pooled OLS, fixed effect and random effect. This research is divided into four sections, the first introduction, the second methodology, third estimation results, and forth conclusions.

Methodology

This research is using household survey from the Indonesia Family Life Survey (IFLS) 5 that held on 2014 and IFLS 4 that held on 2007. IFLS is designed to provide data for studying behaviors and outcomes. The survey contains several indicators of economic and non-economic well-being: consumption, income, assets, education, migration, labor market outcomes, marriage, fertility, contraceptive use, health status, use of health care and health insurance, relationships among co-resident and non-resident family members, processes underlying

household decision-making, transfers among family members and participation in community activities. For this research, we collect data from 18422 children who have information about their health, education attaiment, parental information, household condition, community characteristics, and finance information. Generally our sample are split in of two groups, the first is children under of 15 years old. The second ones are children under five years old (toddlers).

The measurement of under five-year old child health status can be done by calculating the value of height for age and stunting. According Skoufias z-score is calculated by comparing references from the World Health Organization/National Center for Health Statistics/Centers for Disease Control (WHO/NCHS /CDC), namely International Growth Reference Standards for children nutritious well. Suppose the z-score for height for age z-score (HAZ) was calculated using the formula:

$$Z_{ic} = \left(H_{ic} - Median\ H_c\right) / \sigma_c$$

H_{ic} is child's height. The median H_c is child's age and σ_c is the median is child's age and is gender specific standard of median under five child's height who are well nutritious. Classification method used in this study is the definition of Waterlow (1972:556) which explains that the weight for height is a measure of current nutritional status and height for age is a measure of past nutritional status.

The measurement of child education status can be done by child enrollment and education attaiment. Child enrollment is measured on age when they enrolled then go to elementary school at the first time (Suryadarma, et. al, 2006). Child educational attainment is measured on how many years they spend time on school.

The measure of finance access first is shown with the availability of BRI (Bank Rakyat Indonesia) and BMT (Baitul Mal wat Tamwil). We choose the present of BRI because BRI almost present in every district in Indonesia. Second with household information which are they have saving on bank or how much their saving or having debt or debt nominal.

Then the independent variables are divided into several groups: child characteristics, parental characteristics, household characteristics and community characteristics.

For empirical analysis, I use an econometrical regression function of the following form (Patel et al., 2007, Chernichovsky et al., 1985, Skoufias et al., 1999):

1. *Pooled OLS (Pooled Least Square)* is

$$dependent = \beta_0 + \beta_1 X_c + \beta_2 X_p + \beta_3 X_h + \beta_4 X_c + \beta_5 X_f + u_{it}$$

2. *Fixed effect* is

$$dependent = \beta_0 + \beta_1 X_c + \beta_2 X_p + \beta_3 X_h + \beta_4 X_c + \beta_5 X_f + u_{it}$$

3. *random effect* is

$$dependent = \beta_0 + \beta_1 X_c + \beta_2 X_p + \beta_3 X_h + \beta_4 X_c + \beta_5 X_f + u_{it}$$

- Dependent is haz, stunting, school enrollment and education achievement
- Xc is child characteristic; age and sex

- Xp is parent's characteristic; momeduc, momheight, dadheight.
- Xh is parent's characteristic; sizehh, lnpce, hos_water, hos_electricity
- Xcm is community's characteristic; loc_urban, vlg_nummdwf, vlg_numposyd, vlg_school, asphalt road, java or outside.
- Xf if finance characteristic; saving, nom saving, nom loan, vlg BRI, vlg BMT

The data are processed using Stata 12.0. Regression methods that being used are; first pooled least squares (Pooled OLS), which assumes the intercept (β0) and slope (β1) is constant. Second, fixed effect absorbs the factors that control the unobservable household characteristics and inter-time may affect the outcome. Third, random effect that assume there is a difference of intercept for each individual and the intercept is a random or stohastics variable.

Result And Discussion

The first part of this discussion about the child's health, height for age z-score and stunting. This research analyzed 6,899 children, who are under 60 months. Here, I found that 36.64 percent of the sample said their household has saving/certificates and 63.36 percent don't have it. The average saving with household is 1,693,630 rupiah. Meanwhile for household who ever got loan, they said 25.37 percent of household had ever got loan for last one year, and 74.63 percent never. The average loan that accept with in household is 5,044,509 rupiah.

The result shows, household who has saving or loan has positive effect for height for age z-score. Household who has saving or loan could make a better decission of spending their money. With hausman test the result show that the best estimation are in fixed effect, household who has saving will increase her child's height for age z-score as much as 0.083 standard deviation and household who has loan will increase her child's height for age z-score as much as 0.1161 standard deviation. The increasing 1 percent of saving will increasing child's height for age z-score as much as 0.045 standard deviation. For location we found that children who live in java have bigger height for age z-score than outside java. Children who lives in village that has BRI has child's height for age z-score 0.1634 standard deviation than the other.

For Stunting probability, we found that household who has loan wil decrease their probability being stunted. For location we found that children who live in java will have smaller probability being stunted rather outside java. Children who lives in village that has BMT will have smaller probability being stunted rather the opposide. From this condition we can conclude that household who has saving or loan means they got liquidity on finance, so they could make a better choice to maximaze their needs (Honohan, 2007). Meanwhile, village access on finance, the availability of finance institution means how to develop the village and how easy they got liquidity access.

Several characteristics may influence child health such as; child's sex, child's age on month, mother education, household expenditure, urban/rural residence, and the availability of *posyandu*. Usually boys have lower height for age z-score than girls (Thomas, 1994). This condition shows that probably there is gender bias between boys and girl. Younger toddler usually has lower height for age z-score than the older one. Because they were vulnerable to disease and their immunity, were rudimentary.

Parental factor has positive influence for height for age z-score. Mother with higher education will has healthier child (Skoufias, 1999). Mother who is able to read will be able to access information. The research use parent's height to control child's genetic. The results show there are big relationship between parents and their child (Silva, 2005:20).

Household factors also matter for child nutritional status. For example, the bigger expenditure in the household will be related to be better resource allocation within. However, the increasing number of household member will be negative impact for child's height for age z-score (Misra dan Retherford, 2000). Source of clean water are related to child's nutritional status. House that equipped with clean water will have bigger height for age z-score (Senbajo etal., 2005).

Urban or rural residence has positive effect on child's height for age z-score. Children who live in urban area usually easier to achieve health facilities than children in rural area (Ricci, 1996). For example, the increasing number of *Posyandu* will help mother to maintain her child.

Second of the research is about school enrollment and school attaiment. This research analysis 11,523 children sample who are under 15 years old and ever go to school. From the data, I found that 34.03 percent of the sample said their household has saving/certificates and 65.97 percent don't have it. The average saving with household is 1,675,093 rupiah. Meanwhile for household who ever got loan, they said 26.40 percent of household had ever got loan for last one year, and 74.63 percent never. The average loan that accept with in household is 5,290,870 rupiah.

The result shows, household who has loan has positive effect for education attaiment. Children who live in household that have loan will reach their education higher 0.038 than the others. For location we found that children who live in Java have positive impact on school enrollment, meanwhile it has negative impact on school attaiment. Children who lives in village that has BRI has positive impact on school enrollment. Meanwhile village who has BMT has positive impact both on school enrollment and school attaiment. This condition show that access of finance really has positive impact for education. Village with banking institution has a strong effect both on wellfare and acess on other thing.

Gender bias also be problem in here, most of family are boys oriented. Because girl's opportunity to go school are bigger than boys (Khanam and Ross, 2008, Vida, 2004, Connelly and Zheng, 2002, Chernichovsky and Meesook, 1985). When a child grows up, his probability go to school is bigger than before. Now Indonesian government requires minimum age, so if child has passed this age he could go to school.

The higher parents' education, the better the child's education. Because their parent easier to understand education and better parenting than the other (Ota and Moffatt, 2007, Vida, 2004, Connelly and Zheng, 2002). Household factors also matter for child education. For the example, the bigger expenditure in the household are related with better resource allocation. However, the increasing number of children may be affected child education. Last one is the availability of village elementary school. Increasing number of school will make children easier to go to school.

Conclusion

This study examines the relationship between the impact of finance access in the household for child's education and child's health. The first issue, having saving or loan in the household are influence child's health in the long term. Household who can make loan can be better off than other, because they can get more resources. Village finance institution also has positive impact, the availability of BRI and BMT also increase child health. Besides it, child's sex, child's age on month, mother education, household expenditure, urban/rural residence, and availability of *posyandu* also have effect on children's health.

The second issue, having saving in the household are influence child's education especially in education attaiment. Children who live in Java has positive impact on school

enrollment and negative impact on scholl attaiment. Village finance institution, BRI has positive impact on education attaiment, meanwhile the availability of BMT has positive impact on school enrollment. Besides it, child's sex, child's age, parental education, household expenditure, number of children, urban/rural residence, and availability of elementary school also have effect on child's education.

Finance access with in household is very important, in here i agree with Yunus (2006) that household who had loans or saving as capital can make their incomes will grow, with rising incomes, children will be given long denied opportunities. As new field, household finance experienced not only growth of theoretical results and empirical findings, but also a begining of new questions and topics still awaiting to be explored and answered. I believe these trends can only continue and sincerely wish this chapter will attract even more interest and work in this new and exciting area of research.

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Table 1. Statistical Description

Variable	Label	Obs	Mean	Std. Dev.	Min	Max
year	=1, Observed on 2014	18422	0.50	0.50	0	1
hhid	Household id	0				
pid	Person id	18422	6.09	3.02	1	38
commid	Community id	0				
educ	Education achievement	10943	4.85	2.59	0	12
educ_enroll	Age when enrolled to elementary	10931	6.09	0.74	3	14
schvlg	=1, there is school in village	10950	0.25	0.43	0	1
umur	Child age (year)	18422	7.48	4.41	0	15
age	Child age (month)	6915	32.15	20.09	0	60
sex	=1, male	18422	0.51	0.50	0	1
haz	Height for age z-score	6431	-0.56	1.71	-4.99	4.97
stunting	=1, being Stunting	6431	0.18	0.39	0	1
dadheight	Father's height	18413	149.77	20.78	13.6	198
momheight	Mother's height	18419	144.66	19.52	11.4	184.6
momeduc	Mother's years of education	18419	8.13	3.86	0	18
house_cleanwtr	=1, use clean water for drinking	18251	0.88	0.33	0	1
house_elctpln	=1, use electricity	18422	0.97	0.16	0	1
prov_java	=1, Java province	18422	0.50	0.50	0	1
nummdwf	Number of Midwife in village	18422	1.06	0.97	0	8
numposyd	Number of Posandu in village	18422	7.42	6.02	0	68
vbri	=1, there is BRI in village	18422	0.23	0.42	0	1
vbmt	=1, there is BMT in village	18422	0.07	0.25	0	1
pce	Personal Consumption Expenditure	18422	645,452	564,463	27,740	17,000,000
lnpce	Ln Personal Consumption Expenditure	18422	13.11	0.72	10.23	16.65
nomsaving	Household Saving Nominal	18422	1,682,035	9,145,074	-	218,000,000
saving	=1, Household has saving	18422	0.35	0.48	0	1
lever	=1, Household ever has debt	18422	0.26	0.44	0	1
lnum	Nominal Debt	10992	5,199,157	35,600,000	-	1,000,000,000
sizehh	Householdsize	18422	5.06	1.80	2	16

Source: IFLS 2014 and 2007, processed

Table 2. Saving Effect On Height For Age Z-Score

	-1	-2	-3	-4	-5	-6
	PLS	Fixed Effect	Random Effect	PLS	Fixed Effect	Random Effect
=1, Having saving account	0.0614***	0.0836*	0.0614			
	(-0.0143)	(-0.043)	(-0.0435)			
lnsaving				0.0308	0.0452*	0.0308
				(-0.0474)	(-0.0248)	(-0.025)
=1, Java Province	0.1957***	0.1884***	0.1957***	0.3405**	0.3100***	0.3405***
	(-0.0376)	(-0.0404)	(-0.0409)	(-0.159)	(-0.0811)	(-0.082)
=1, Having BRI in village	0.1029***	0.1022**	0.1029**	0.1370***	0.1634*	0.137
	(-0.0215)	(-0.0502)	(-0.0508)	(-0.0438)	(-0.0938)	(-0.0949)

=1, Having BMT in village	0.1415***	0.0782	0.1415*	0.1861*	0.099	0.1861
	(-0.0009)	(-0.0791)	(-0.08)	(-0.0951)	(-0.1611)	(-0.1627)
Child Characteristic	yes	yes	yes	yes	yes	yes
Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	6368	6368	6368	1557	1557	1557
Number of groups	2			2		

Table 3. Loan Effect Height For Age Z-Score

	-1	-2	-3	-4	-5	-6
	PLS	Fixed Effect	Random Effect	PLS	Fixed Effect	Random Effect
=1, Having loan	0.1366	0.1161***	0.1366***			
	(-0.0852)	(-0.0446)	(-0.0451)			
ln loan				-0.0129	-0.0071	-0.0129
				(-0.018)	(-0.0241)	(-0.0241)
=1, Java Province	0.1929***	0.1895***	0.1929***	0.0803	0.0946	0.0803
	(-0.028)	(-0.0402)	(-0.0407)	(-0.0683)	(-0.0716)	(-0.0718)
=1, Having BRI in village	0.1058***	0.1044**	0.1058**	0.1671***	0.1635*	0.1671*
	(-0.0132)	(-0.0502)	(-0.0508)	(-0.023)	(-0.0873)	(-0.0876)
=1, Having BMT in village	0.1411***	0.0787	0.1411*	-0.0359	-0.0282	-0.0359
	(-0.0165)	(-0.0791)	(-0.08)	(-0.2175)	(-0.1308)	(-0.1313)
Child Characteristic	yes	yes	yes	yes	yes	yes
Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	6368	6368	6368	1996	1996	1996
Number of groups	2			2		

Source: IFLS 2007 and 2014, processed

Note: Coefficient is shown by figures outside the parentheses, while the standard error inside the parentheses. Symbols ***, ** or * indicates significance at 1% confidence level, 5% confidence level, or 10% confidence level.

Table 4. Saving Effect On Stunting

	-1	-2	-3	-4	-5	-6
	LPM	Fixed Effect	Random Effect	LPM	Fixed Effect	Random Effect
=1, Having saving account	-0.0063	-0.0685	-0.0675			
	(-0.0089)	(-0.0799)	(-0.0799)			
lnsaving				0.0002	-0.004	0.003
				(-0.0019)	(-0.0469)	(-0.0467)
=1, Java Province	-0.0359	-0.2449***	-0.2452***	-0.0641***	-0.4783***	-0.4935***
	(-0.0252)	(-0.0718)	(-0.0718)	(-0.0204)	(-0.1533)	(-0.153)
=1, Having BRI in village	-0.0142	-0.1107	-0.1107	-0.0127***	-0.1149	-0.1057
	(-0.0111)	(-0.0944)	(-0.0944)	(-0.0041)	(-0.1861)	(-0.1866)
=1, Having BMT in village	-0.0358	-0.2822*	-0.2851*	-0.0851	-0.9847**	-1.0199**

	(-0.03)	(-0.1689)	(-0.1688)	(-0.0695)	(-0.4451)	(-0.443)
Child Characteristic	yes	yes	yes	yes	yes	yes
Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	6368	6368	6368	1557	1557	1557
Number of groups	2			2		

Table 5. Loan Effect On Stunting

	-1	-2	-3	-4	-5	-6
	PLS	Fixed Effect	Random Effect	PLS	Fixed Effect	Random Effect
=1, Having loan	-0.0473	-0.3814***	-0.3823***			
	(-0.0309)	(-0.0883)	(-0.0883)			
ln loan				0.0012	0.019	0.0204
				(-0.004)	(-0.0508)	(-0.0507)
=1, Java Province	-0.0332	-0.2260***	-0.2262***	-0.0066	-0.0571	-0.0552
	(-0.023)	(-0.0718)	(-0.0718)	(-0.005)	(-0.1512)	(-0.1512)
=1, Having BRI in village	-0.0153*	-0.1245	-0.1245	-0.0273**	-0.3145	-0.3143
	(-0.0087)	(-0.0946)	(-0.0946)	(-0.0109)	(-0.2013)	(-0.2015)
=1, Having BMT in village	-0.0356	-0.2745	-0.2778	-0.0151	-0.166	-0.1629
	(-0.0257)	(-0.169)	(-0.169)	(-0.0151)	(-0.3058)	(-0.3056)
Child Characteristic	yes	yes	yes	yes	yes	yes
Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	6368	6368	6368	1996	1996	1996
Number of groups	2			2		

Source: IFLS 2007 and 2014, processed

Note: Coefficient is shown by figures outside the parentheses, while the standard error inside the parentheses. Symbols ***, ** or * indicates significance at 1% confidence level, 5% confidence level, or 10% confidence level.

Table 6. Saving Effect On School educ_enrollment

	-1	-2	-3	-4	-5	-6
	PLS	Fixed Effect	Random Effect	PLS	Fixed Effect	Random Effect
=1, Having saving account	0.0012	-0.0072	0.0012			
	(-0.0011)	(-0.0157)	(-0.0157)			
Nominal saving				0.0000**	0	0.0000*
				(0)	(0)	(0)
=1, Java Province	0.1015**	0.1023***	0.1015***	0.1020**	0.1018***	0.1020***
	(-0.0425)	(-0.0142)	(-0.0143)	(-0.042)	(-0.0141)	(-0.0142)
=1, Having BRI in village	0.0246	0.0175	0.0246	0.0248	0.0176	0.0248
	(-0.027)	(-0.0173)	(-0.0173)	(-0.0272)	(-0.0173)	(-0.0173)
=1, Having BMT in village	0.0630***	0.0783***	0.0630**	0.0627***	0.0783***	0.0627**
	(-0.0059)	(-0.0279)	(-0.028)	(-0.0053)	(-0.0279)	(-0.028)
Child Characteristic	yes	yes	yes	yes	yes	yes

Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	10805	10805	10805	10805	10805	10805
Number of groups	2			2		

Table 7. Loan Effect On School educ_enrollment

	-1 PLS	-2 Random Effect	-3 Fixed Effect	-4 PLS	-5 Fixed Effect	-6 Random Effect
=1, Having loan	-0.0189	-0.0104	-0.0189			
	(-0.0225)	(-0.0158)	(-0.0159)			
Nominal loan				0.0000***	0.0000**	0.0000**
				(0)	(0)	(0)
=1, Java Province	0.1034**	0.1027***	0.1034***	0.1308***	0.1260***	0.1308***
	(-0.0405)	(-0.0142)	(-0.0143)	(-0.0201)	(-0.0173)	(-0.0173)
=1, Having BRI in village	0.0244	0.0174	0.0244	0.0422***	0.0389*	0.0422**
	(-0.0275)	(-0.0173)	(-0.0173)	(-0.0124)	(-0.0205)	(-0.0205)
=1, Having BMT in village	0.0637***	0.0787***	0.0637**	0.0727***	0.0736**	0.0727**
	(-0.0038)	(-0.0279)	(-0.028)	(-0.002)	(-0.03)	(-0.03)
Child Characteristic	yes	yes	yes	yes	yes	yes
Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	10805	10805	10805	6481	6481	6481
Number of groups	2			2		

Source: IFLS 2007 and 2014, processed

Note: Coefficient is shown by figures outside the parentheses, while the standard error inside the parentheses. Symbols ***, ** or * indicates significance at 1% confidence level, 5% confidence level, or 10% confidence level.

Table 8. Saving Effect On Education Attaiment

	-1	-2	-3	-4	-5	-6
	PLS	Random Effect	Fixed Effect	PLS	Fixed Effect	Random Effect
=1, Having saving account	0.0262	0.0386*	0.0262			
	(-0.0245)	(-0.0205)	(-0.0206)			
Nominal saving				-0.0000***	0	-0.0000**
				(0)	(0)	(0)
=1, Java Province	-0.0672**	-0.0686***	-0.0672***	-0.0654**	-0.0653***	-0.0654***
	(-0.0298)	(-0.0186)	(-0.0187)	(-0.0256)	(-0.0185)	(-0.0186)
=1, Having BRI in village	-0.0250***	-0.0145	-0.025	-0.0252**	-0.0146	-0.0252
	(-0.0096)	(-0.0226)	(-0.0227)	(-0.0104)	(-0.0226)	(-0.0227)
=1, Having BMT in village	-0.0448	-0.0673*	-0.0448	-0.0449	-0.0676*	-0.0449
	(-0.0386)	(-0.0365)	(-0.0367)	(-0.0361)	(-0.0365)	(-0.0367)
Child Characteristic	yes	yes	yes	yes	yes	yes
Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	10817	10817	10817	10817	10817	10817
Number of groups	2			2		

Table 9. Loan Effect On Education Attaiment

	-1	-2	-3	-4	-5	-6
	PLS	Random Effect	Fixed Effect	PLS	Fixed Effect	Random Effect
=1, Having loan	0.0235	0.0111	0.0235			
	(-0.0344)	(-0.0207)	(-0.0208)			
Nominal loan				0	0	0
				(0	(0	(0
=1, Java Province	-0.0670***	-0.0662***	-0.0670***	-0.0908***	-0.0826***	-0.0908***
	(-0.0233)	(-0.0186)	(-0.0187)	(-0.0012)	(-0.0221)	(-0.0222)
=1, Having BRI in village	-0.0246**	-0.0143	-0.0246	-0.0204	-0.0148	-0.0204
	(-0.0107)	(-0.0226)	(-0.0227)	(-0.0182)	(-0.0263)	(-0.0263)
=1, Having BMT in village	-0.0462	-0.0683*	-0.0462	-0.0929***	-0.0944**	-0.0929**
	(-0.0344)	(-0.0365)	(-0.0367)	(-0.0054)	(-0.0384)	(-0.0386)
Child Characteristic	yes	yes	yes	yes	yes	yes
Parental Characteristic	yes	yes	yes	yes	yes	yes
Community Characteristic	yes	yes	yes	yes	yes	yes
Number of observations	10817	10817	10817	6482	6482	6482
Number of groups	2			2		

Source: IFLS 2007 and 2014, processed

Note: Coefficient is shown by figures outside the parentheses, while the standard error inside the parentheses. Symbols ***, ** or * indicates significance at 1% confidence level, 5% confidence level, or 10% confidence level.